PUBLIC NOTICE

US Army Corps
of Engineers
New York District
Jacob K. Javits Federal Building
New York, N.Y. 10278-0090
ATTN: Regulatory Branch

In replying refer to:
Public Notice Number: NAN-2009-00449
Issue Date: May 15, 2009
Expiration Date: June 15, 2009

To Whom It May Concern:

The New York District, Corps of Engineers has received a mitigation bank prospectus to establish the Evergreen Hackensack River Mitigation Bank. This notice is to inform interested parties of the proposed activities and solicit comments.

AUTHORITY: Issuance of a public notice regarding a proposed mitigation bank prospectus is required pursuant to the "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule," (Rule) as published in the April 10, 2008, Federal Register, Vol. 73, No. 70, Pages 19594-19705 (33 Code of Federal Regulations, Parts 325 and 332). The authorization of the proposed wetland mitigation bank will be reviewed under a separate future permit action pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: Evergreen Environmental, LLC
425 Darby Paoli Road
Wayne, Pennsylvania 19087

ACTIVITY: The prospective mitigation bank sponsor, Evergreen Environmental, LLC, is in the process of requesting Department of the Army authorization to establish and maintain a 44.93 acre wetland mitigation bank along the Hackensack River.

All aspects associated with the objectives, establishment, operation, maintenance, and monitoring of the proposed bank are discussed in the attached "Proposed Evergreen Hackensack River Mitigation Bank Prospectus", dated March 2009.

The attached mitigation bank prospectus implies that the work associated with the construction of the proposed wetland mitigation bank would be authorized under Nationwide Permit Number 27. However, at this time, the New York District of the U.S. Army Corps of Engineers has not made a determination on whether the application would be processed for authorization in this manner.

The proposed mitigation bank may be one of a number of practicable options available to applicants to compensate for unavoidable wetland impacts associated with Department of the Army permits issued under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The attached mitigation bank prospectus will be reviewed by the New York District of the U.S. Army Corps of Engineers in consultation with a group of federal and state agency representatives known as the Interagency Review Team (IRT). The New York District of the U.S. Army Corps of Engineers is the chair of the IRT (which, in this instance, is the Meadowlands Interagency Mitigation Advisory Committee (MIMAC)).

The proposed mitigation bank sponsor is in the process of preparing mitigation bank design plans for the site which will be submitted to the U.S. Army Corps of Engineers for consideration as part of a Department of the Army permit application pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

WATERWAY: Hackensack River

LOCATION: Township of Ridgefield, Bergen County, New Jersey.

FEDERAL EVALUATION OF THE PROPOSAL: The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate this proposed mitigation bank. The New York District Corps of Engineers in evaluating this proposal will consider any comments received. Comments will be used to assess the potential for the proposed mitigation bank to provide appropriate compensatory mitigation for activities authorized by Department of the Army permits.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this mitigation bank prospectus, you may contact this office at (917) 790-8412 and ask for James Cannon.

For more information on New York District Corps of Engineers programs, visit our website at http://www.nan.usace.army.mil

Richard L. Tomer
Chief, Regulatory Branch

Attachment: Proposed Evergreen Hackensack River Mitigation Bank Prospectus, dated March 2009

Proposed Evergreen Hackensack River Mitigation Bank Prospectus

MITIGATION BANK DESCRIPTION

The mitigation bank description is presented below in accordance with the requirements of a Prospectus as detailed in "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule", 33 CFR Parts 325 and 332 and 40 CFR Part 230 of April 10, 2008.

(i) Objectives of the proposed mitigation bank

The applicant and Bank Sponsor, Evergreen, has requested Department of the Army approval of the Prospectus/Draft MBI to establish a mitigation bank. The Bank would establish and maintain 44.93 acres of wetland and upland habitat and provide wetland mitigation for permitted projects within the region as defined by the service area. The area currently consists of an undeveloped area of degraded and filled tidal marsh.

(ii) How the mitigation bank will be established and operated

The Sponsor will establish, operate and maintain the enhanced and restored intertidal wetland and open water channels in accordance with the provisions of a Mitigation Banking Instrument (MBI), as well as a Corps' Nationwide Permit 27. The project occurs in tidal wetlands adjacent to the Hackensack River, Town of Ridgefield, Bergen County, New Jersey.

The acres of habitat implemented by the establishment of the Bank will be categorized as creation and enhancement/restoration. A ratio of acres of habitat by wetland category to mitigation credits generation will be a 2:1 ratio for creation and a 1:1 ratio for enhancement/restoration. The 1:1 ratio for enhancement is based on the understanding that release of the credits will be contingent on the acres of restored/enhanced wetland being deemed successful by the Corps and NJDEP, which will result in a delay in the release of these credits. It is proposed that the enhancement credits will be available to be used as mitigation in accordance with applicable requirements. One (1) credit from the Bank would mitigate for one (1) typical acre of authorized wetland impact.

Permitted projects proposed for utilization of credits will be submitted to the Corps and/or NJDEP for consideration in conjunction with the permitting for such projects. The Sponsor will submit a statement to the IRT each time credits are debited or additional credits are approved.

Upon submittal of all appropriate documentation by the Sponsor and subsequent approval by the IRT, it is agreed that credits will become available for use by the Sponsor for sale to approved permittees, or for transfer to a third party in accordance with the credit totals presented in Table 1 and the release schedule presented in Table 2.

Table 1: Wetland Mitigation Credit Totals

Mitigation Category	Ratio	Acres	Credits
Wetland Enhancement (emergent marsh)*	1:1	28.56	28.56
Wetland Enhancement (scrub-shrub)	3:1	0.85	0.28
Wetland Creation (emergent marsh and scrub-shrub)	2:1	0.57	0.29
Wetland/Open Water/Mudflat Preservation	27:1	3.67	0.14
Upland Enhancement	6:1	4.01	0.67
Upland Preservation	27:1	0.18	0.01
Easements/Tidelands Claim Preservation	N/A	7.09	0.0
Totals		**44.93**	**29.94**

* Release of credits to be delayed until the area is deemed successful by Corps and NJDEP.

Table 2: Release Schedule of Available Credits and Performance Criteria

Mitigation Category	Ratio	Acres	Credits	Execute MBI	Establish Hydrology	Complete Planting	Year 1 (1)	Year 3* (2)	Year 5 (3)	Total
Release Schedule				**10%**	**0%**	**0%**	**0%**	**90%**	**0%**	**100%**
Wetland Enhancement (emergent marsh)	1:1	28.56	28.56	2.86	0.00	0.00	0.00	25.70	0.00	**28.56**
Release Schedule				**10%**	**20%**	**10%**	**20%**	**15%**	**25%**	**100%**
Wetland Enhancement (scrub/shrub)	3:1	0.85	**0.28**	0.03	0.06	0.03	0.06	0.04	0.07	**0.28**
Wetland Creation (emergent marsh and scrub/shrub)	2:1	0.57	**0.29**	0.03	0.06	0.03	0.06	0.04	0.07	**0.29**
Wetland/Open Water/Mudflat Preservation	27:1	3.67	**0.14**	0.01	0.03	0.01	0.03	0.02	0.03	**0.14**
Upland Enhancement	6:1	4.01	**0.67**	0.07	0.13	0.07	0.13	0.10	0.17	**0.67**
Upland Preservation	27:1	0.18	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
Easements/Tidelands Claim Preservation	N/A	7.09	**0**	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
		44.93	**29.94**	**2.99**	**0.28**	**0.14**	**0.28**	**25.91**	**0.34**	**29.94**

* The release of Wetland Enhancement emergent marsh credits is contingent on performance criteria achievement which may occur earlier than Year 3.

(1) Year 1: Demonstrate that wetlands and uplands have been developed in the ratios approved by the IRT. Report percent survival and areal coverage of planted areas and document any planting and remediation plans.

(2) Year 3: Demonstrate 80-85 percent survival of the target mitigation vegetative species target density or 80-85 percent of the target mitigation vegetative species areal coverage in the wetlands.

(3) Year 5: Demonstrate achievement of the following monitoring standards:

a. Provide documentation that the goals of the wetland mitigation project including acreage and the required transition area, as stated in the approved MBI and the permit, have been satisfied. Documentation for this report will also included a field delineation of the wetland mitigation site based on the techniques specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989) for the NJDEP and the 1987 Manual for the CORPS.

b. Documentation that the site has an 85 percent survival and 85 percent areal coverage of the mitigation plantings or target hydrophytes. The permittee must also document that all plant species are healthy and thriving and if the plant community contains trees that the trees are at

least five feet in height;

c. Documentation demonstrating the site is less than 10 percent occupied by invasive or noxious species such as but not limited to *Phalaris arundinacea* (Reed canary grass), *Phragmites australis* (Common reed grass), *Pueraria montana* (Kudzu), *Typha latifolia* (Broad-leaved cattail), *Lythrum salicaria* (Purple loosestrife), *Ailanthus altissima* (Tree-of-heaven), *Berberis thunbergii* (Japanese barberry), *Berberis vulgaris* (Common barberry), *Elaeagnus angustifolia* (Russian olive), *Elaeagnus umbellata* (Autumn olive), *Ligustrum obtusifolium* (Japanese privet), *Ligustrum vulgare* (Common privet) and *Rosa multiflora* (Multiflora rose);

d. Documentation that the proposed hydrologic regime as specified in the MBI which proves the mitigation site is a wetland has been satisfied. The documentation shall include tidal gage data, photographs and field observation notes collected throughout the monitoring period; and

e. Documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil throughout the delineated wetlands.

(iii) The proposed service area

The proposed service area is depicted on the attached figure. The Service Area includes Watershed Management Area-5, the Hackensack Meadowlands District (HMD) and HUC-11 watershed unit numbers as follows:

020-30-103-170
020-30-103-180
020-30-104-010
020-30-101-170
020-30-103-150 (portion in HMD)

(iv) The general need for and technical feasibility of the proposed mitigation bank

There is a general need for wetland mitigation in the Meadowlands region. Mitigation for permitted projects in need of such mitigation is lacking in the region. Currently there are no wetland mitigation banks with available credits in the region. The proposed wetland mitigation bank is technically feasible and incorporates design concepts applied successfully to other mitigation sites in the Meadowlands over the past several decades. The proposed concept involves the excavation of *Phragmites*-dominated habitat and incorporation of tidal channels so as to establish a tidal regime suitable for emergent marsh habitat.

The bank mitigation design will focus on the establishment of tidal hydrology and native tidal emergent marsh vegetation. Target vegetative communities include brackish emergent marsh species such as Saltmarsh cordgrass, Saltmeadow rush, Three-square bulrush and Saltmeadow cordgrass. Biobenchmarks support the design elevation of the emergent marsh including nearby extant stands of *Spartina alterniflora*. The 44.93-acre site hydrology will be augmented through the extension of tidal channels into the interior of the site in several locations. The tidal channel network has been designed based on review of historical aerials and tidelands mapping. Prior to man-made alteration, the site was traversed by several tidal channels that will be re-established.

All areas of *Phragmites australis* and invasive vines will be treated with herbicide and excavated to lower the elevation to within the low to mean spring high water mark tidal range. Areas of *Phragmites* have accreted sediment and root mat material over the years and are generally

well-above daily tidal inundation range. These areas will be converted to emergent marsh of native species such as *S. alterniflora, S. patens, Distichlis spicata and Juncus gerardii.* Mudflat and open water habitats would also be created. Some of the river edge, likely former diked remnants will not be excavated. These areas will serve as a buffer along the river to protect the site from debris and wrack coming into the site as well as riverine erosive energies. In these areas the *Phragmites* will be treated with herbicide, and some native plantings such as *Baccharis halimifolia* will be planted.

Excavated material will be re-used onsite within upland areas only to enhance upland habitat. The excavated material would be re-used on-site by placing it on the upland islands, placing it on the barren land and also placing it along the eastern border. The upland habitat will be raised above tidal storm-surge range and seeded and planted with native woody species to create habitat for passerine birds and raptors.

(v) The proposed ownership arrangements and long-term management strategy for the mitigation bank project site

The mitigation bank would be owned by the sponsor. The mitigation bank would be monitored and maintained by the Sponsor though a monitoring period until performance metrics are achieved. The Bank will be protected in perpetuity by recording a Conservation Restriction/Easement on the property.

Upon completion of the monitoring period, the mitigation bank land ownership will be transferred to an IRT-approved land trust that is a governmental agency or charitable organization.

(vi) The qualifications of the sponsor

The Sponsor has implemented mitigation banks and mitigation sites in the state for several years. These projects have been approved by the regulatory agencies and have passed monitoring and maintenance periods successfully. The Sponsor is qualified to implement a mitigation bank.

(A) The ecological suitability of the site to achieve the objectives of the proposed mitigation bank, including the physical, chemical, and biological characteristics of the bank site and how that site will support the planned types of aquatic resources and functions

The site is currently a degraded marsh of *Phragmites*-dominated habitat lacking daily tidal inundation as well as upland habitats that are remnants of dredged material deposition activities. The site is bordered by the Hackensack River and ideally positioned to facilitate tidal hydrology restoration as well as native vegetative community re-introduction. Marsh sediment accretion has raised the elevation of the marsh over time and excavation of the marsh plain as well as tidal channel extensions will serve to re-introduce daily flood and ebb tides. Review of historical documents indicates that the site once supported brackish emergent tidal marsh species. Investigation of nearby biological benchmarks indicates that some of these habitats are still extant and re-introduction to the site is feasible.

Once implemented, the bank will be a mosaic of open water channels and habitat, bordered by mudflat, generally exposed twice a day during the tidal cycle. The marsh plain will be vegetated with native species and invasive species will be controlled via herbicide treatment and

excavation as well as planting of native species to out-compete the invasive species. The upland habitat will be enhanced with excavated material and planted and seeded with native species. The establishment of the tidal hydrologic regime is the key step to supporting the proposed and planned types of aquatic resources. The aquatic resources planned and proposed provide functions typical of tidal marshes of the Meadowlands where invasive species have not become the dominant vegetative cover type. Functions anticipated to be enhanced at the bank site include flood storage, nutrient retention as well as transport and water filtration and therefore improved water quality will result from the interaction of the daily tides with the marsh plain vegetated with native species. Wildlife and fish habitat including habitat for threatened and endangered species will be enhanced in the aquatic community as well as in the adjacent upland buffer community. Social functional benefits will include increased opportunities for scientific education, passive recreation and aesthetic visual benefits of a restored tidal marsh bordered by upland habitat.

(B) Assurance of sufficient water rights to support the long-term sustainability of the mitigation bank.

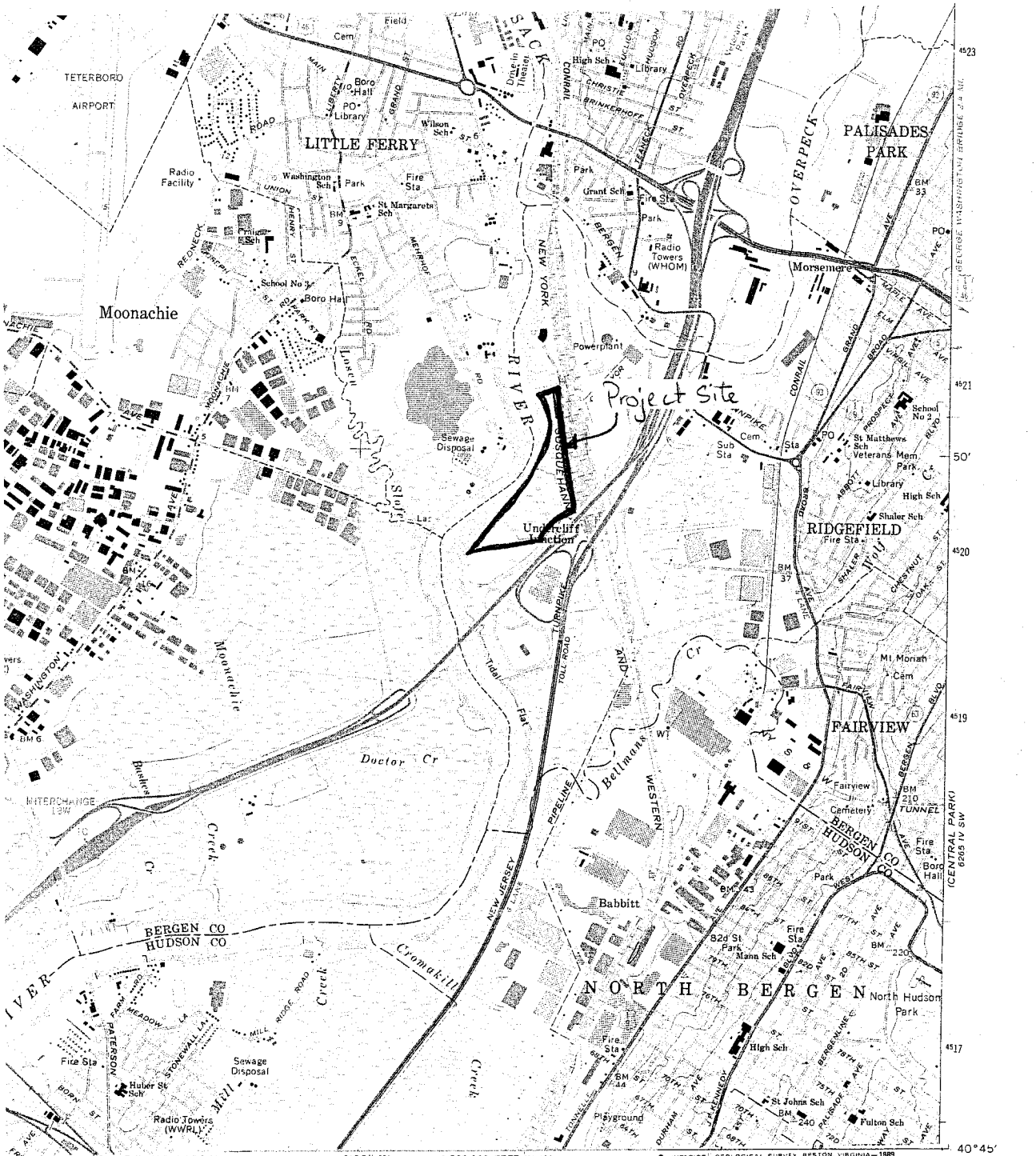
The proposed bank hydrology is dependent on the tidal flow from the Hackensack River. The bank is not dependent on the assignment of water rights from any entity. The site borders the Hackensack River and the long-term sustainability of the tidal hydrology of the site is assured.

Attachments:

Please see the attached design plan sheets below.

The proposed service area is depicted on the attached figure.

March 2009



NTOUR INTERVAL 10 FEET
GEODETIC VERTICAL DATUM OF 1929
UNDINGS IN FEET—DATUM IS MEAN LOW WATER
HIP BETWEEN THE TWO DATUMS IS VARIABLE
ESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
E IS APPROXIMATELY 4.2 FEET IN THE HUDSON RIVER
IN THE HACKENSACK AND PASSAIC RIVERS

3 WITH NATIONAL MAP ACCURACY STANDARDS
E BY U. S. GEOLOGICAL SURVEY
ADO 80225, OR RESTON, VIRGINIA 22092
IAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

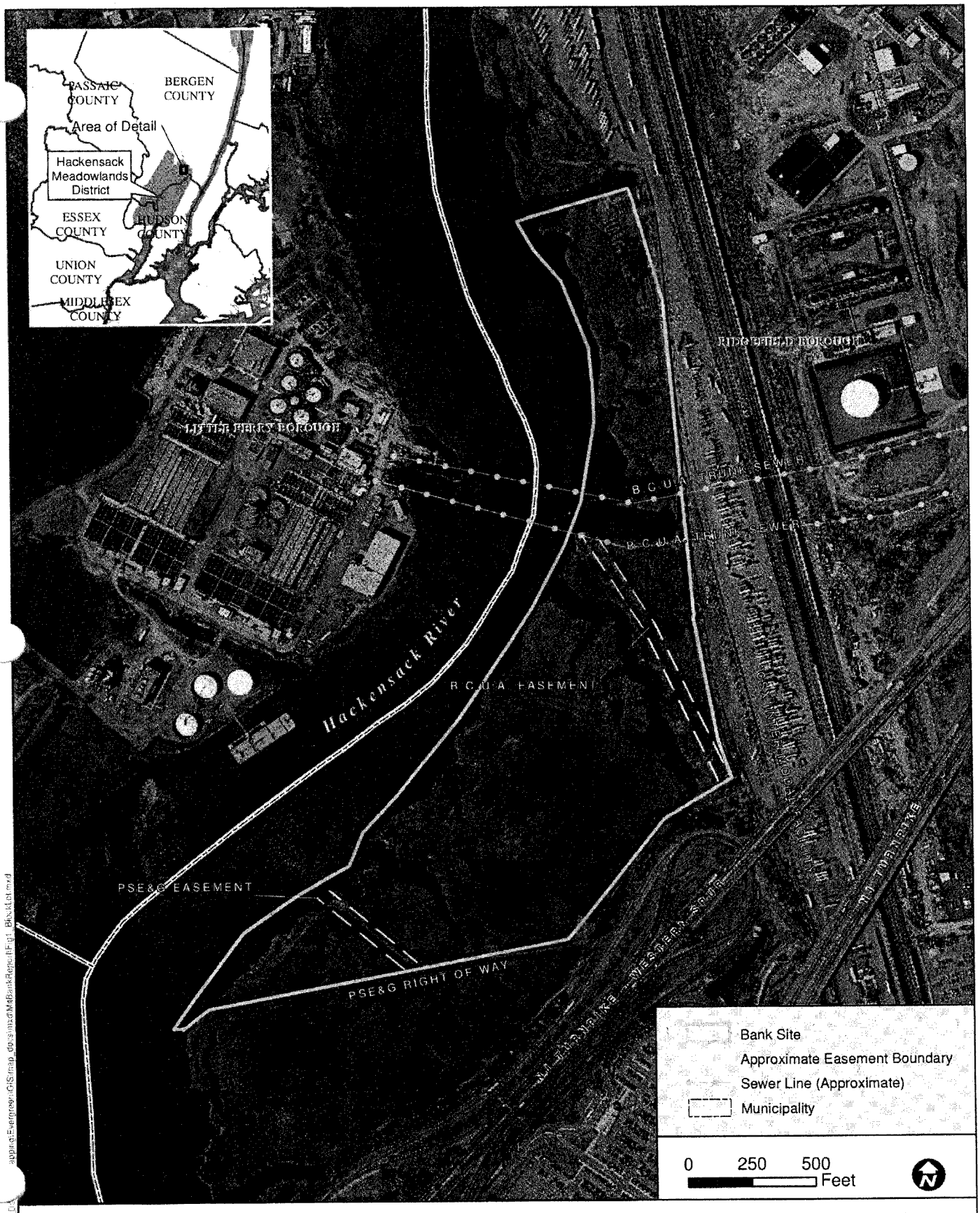
Revisions shown in purple compiled from aerial photographs taken 1976 and other sources. This information not field checked. Map edited 1981

WEEHAWKEN, N. J—N. Y.

40074-G1-TF-024

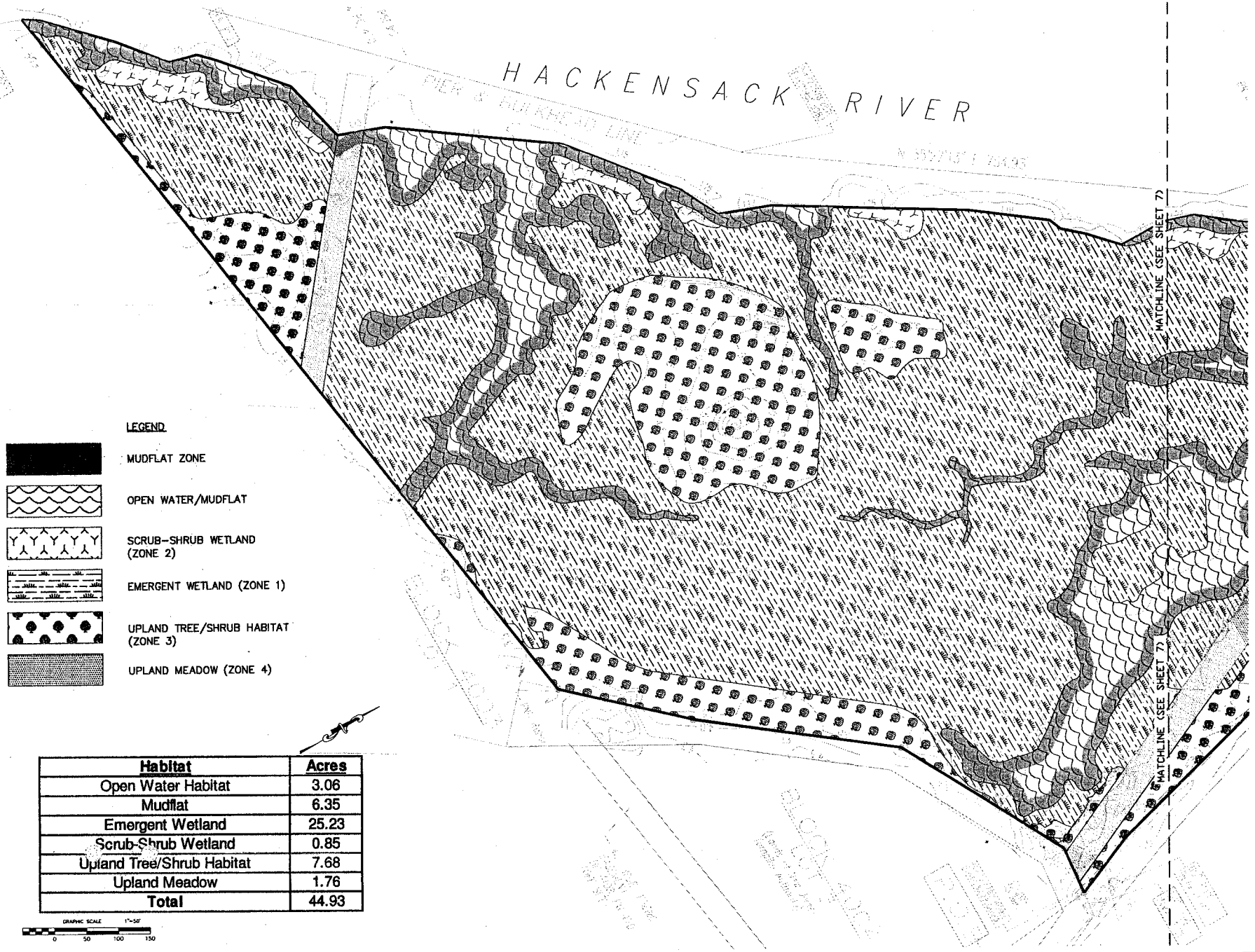
1967
PHOTOREVISED 1981
DMA 6165 I SE—SERIES V822

6



EVERGREEN ENVIRONMENTAL HDR

Figure 1
Evergreen Hackensack River Mitigation Bank Site



Habitat	Acres
Open Water Habitat	3.06
Mudflat	6.35
Emergent Wetland	25.23
Scrub-Shrub Wetland	0.85
Upland Tree/Shrub Habitat	7.68
Upland Meadow	1.76
Total	44.93

GRAPHIC SCALE 1"=50'
0 50 100 150

EVERGREEN ENVIRONMENTAL

HDR

ISSUE	DATE	DESCRIPTION
1	03-31-09	FOR PLANNING PURPOSES

PROJECT MANAGER

PROJECT NUMBER -

SIGNATURE DATE

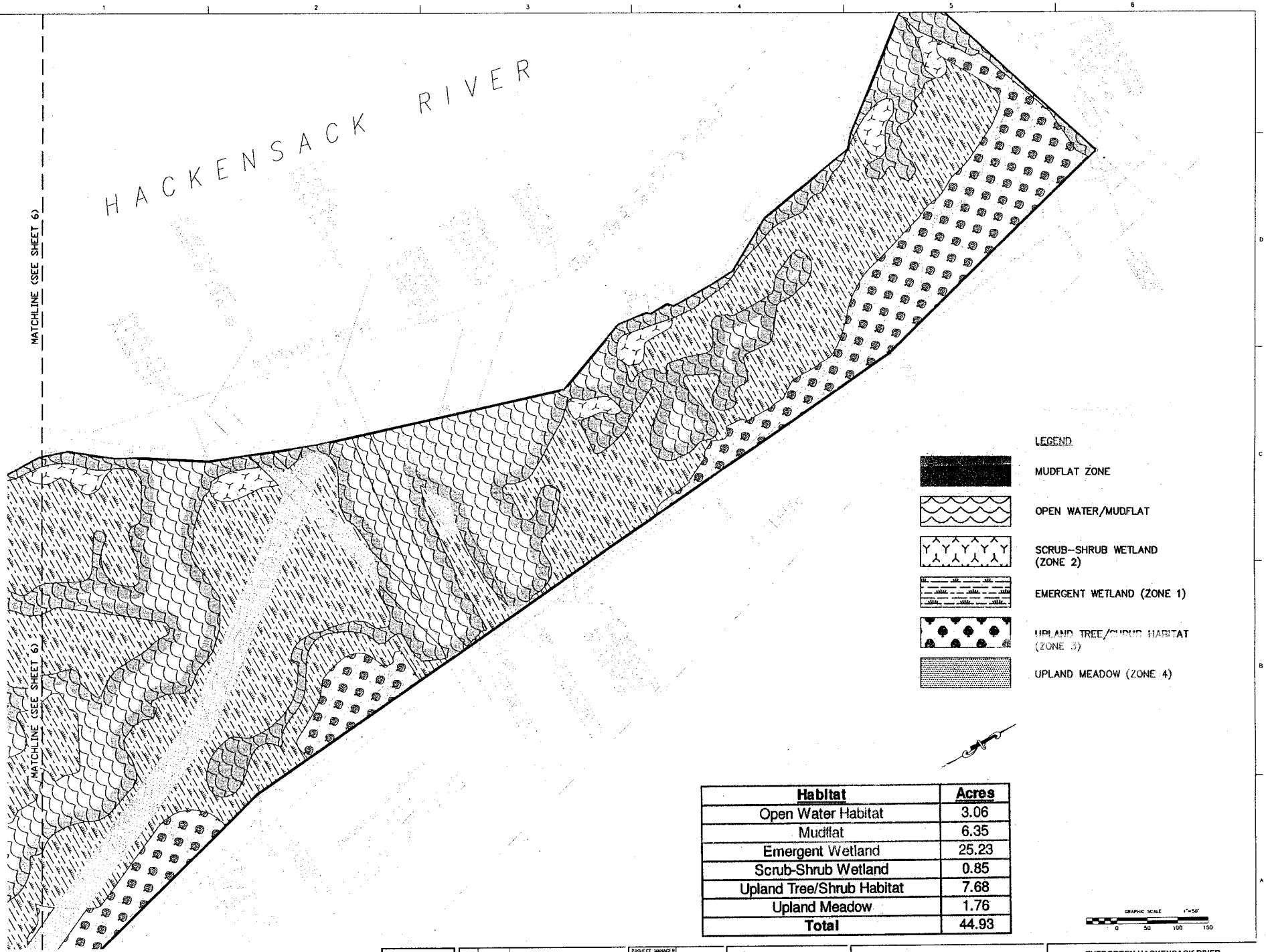
SITUATE
BOROUGH OF RIDGEFIELD
BERGEN COUNTY
NEW JERSEY
BLOCK 4004, LOT 2

EVERGREEN HACKENSACK RIVER MITIGATION BANK

LANDSCAPING PLAN

FILENAME SITE PLAN SHEETS.DWG
SCALE 1" = 50'

SHEET SHEET 6



Habitat	Acres
Open Water Habitat	3.06
Mudflat	6.35
Emergent Wetland	25.23
Scrub-Shrub Wetland	0.85
Upland Tree/Shrub Habitat	7.68
Upland Meadow	1.76
Total	44.93

GRAPHIC SCALE 1"=50'
0 50 100 150

EVERGREEN ENVIRONMENTAL

HDR

ISSUE	DATE	DESCRIPTION
1	03-31-09	FOR PLANNING PURPOSES

PROJECT MANAGER
PROJECT NUMBER
SIGNATURE DATE

SITUATE
BOROUGH OF RIDGEFIELD
BERGEN COUNTY
NEW JERSEY
BLOCK 4004, LOT 2

EVERGREEN HACKENSACK RIVER MITIGATION BANK
LANDSCAPING PLAN

FILENAME SITE PLAN SHEETS.DWG
SCALE 1" = 50'
SHEET SHEET 7

6

GRAPHIC SCALE 1"=50'
0 50 100 150

EVERGREEN ENVIRONMENTAL

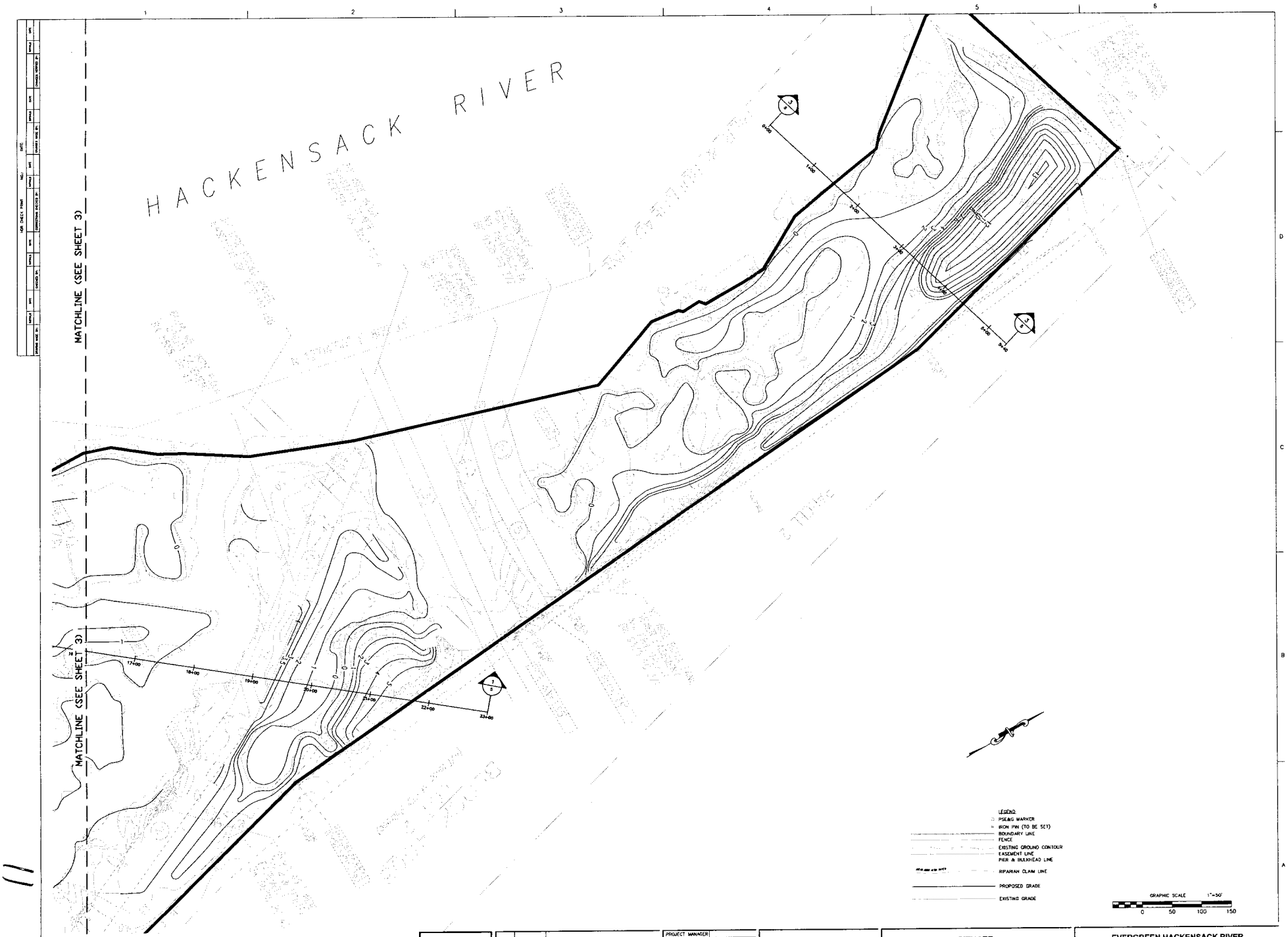
HDR

SITUATE
BOROUGH OF RIDGEFIELD
BERGEN COUNTY
NEW JERSEY
BLOCK 4004, LOT 2

EVERGREEN HACKENSACK RIVER MITIGATION BANK

CONCEPTUAL GRADING PLAN

SHEET 3



EVERGREEN ENVIRONMENTAL

HDR

ISSUE	DATE	DESCRIPTION
1	03-31-09	FOR PLANNING PURPOSES

PROJECT MANAGER

PROJECT NUMBER

SIGNATURE DATE

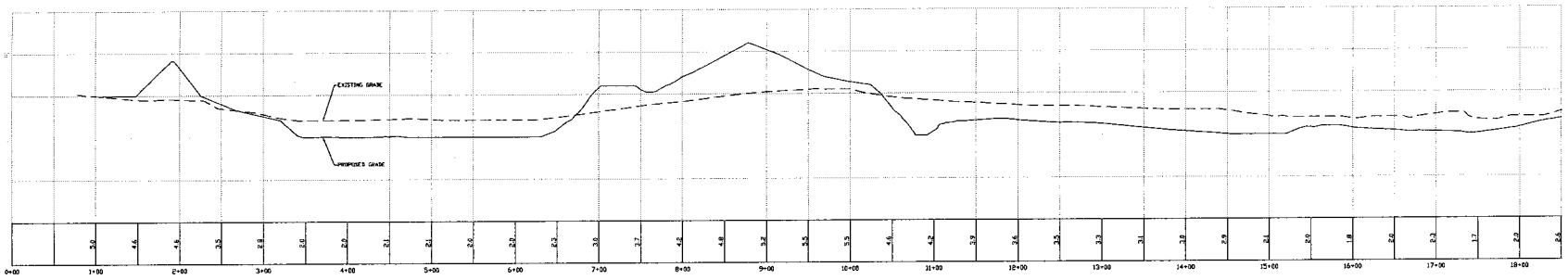
SITUATE
BOROUGH OF RIDGEFIELD
BERGEN COUNTY
NEW JERSEY
BLOCK 4004, LOT 2

EVERGREEN HACKENSACK RIVER MITIGATION BANK

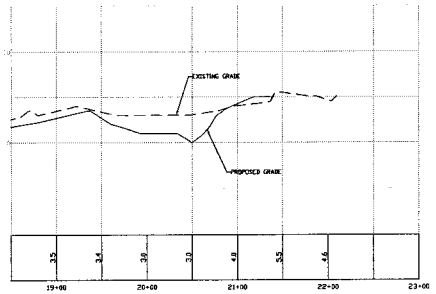
CONCEPTUAL GRADING PLAN

FILENAME SITE PLAN SHEETS.DWG
SCALE 1" = 50'

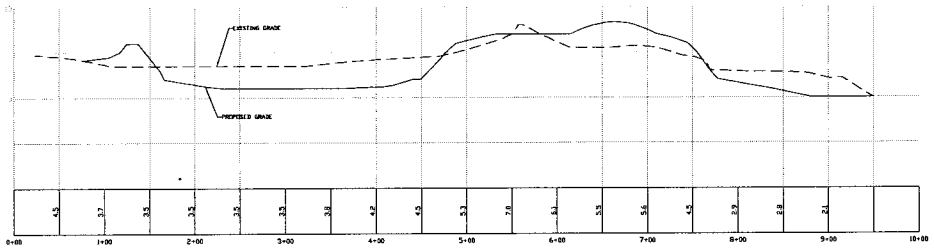
SHEET
SHEET 4



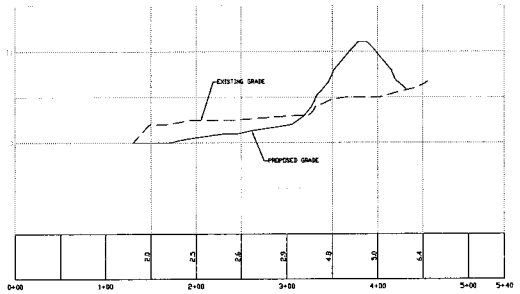
CROSS SECTION 1



CROSS SECTION 1



CROSS SECTION 2



CROSS SECTION 3

HORIZONTAL GRAPHIC SCALE 1"=50'
0 50 100 150

VERTICAL GRAPHIC SCALE 1"=5'
0 5 10 15

EVERGREEN ENVIRONMENTAL

HDR

ISSUE	DATE	DESCRIPTION
1	03-31-09	FOR PLANNING PURPOSES

PROJECT MANAGER

PROJECT NUMBER -

SIGNATURE DATE

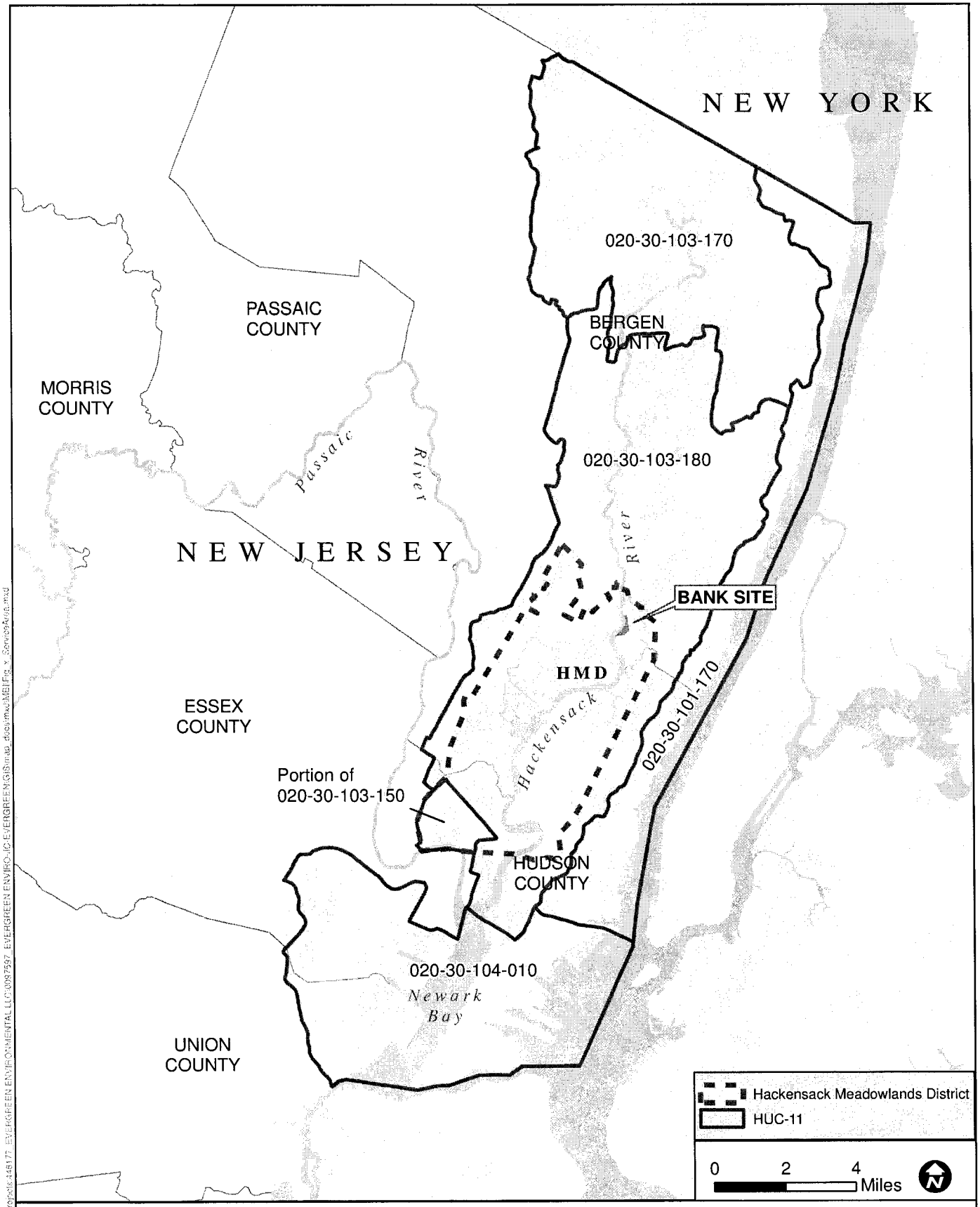
SITUATE
BOROUGH OF RIDGEFIELD
BERGEN COUNTY
NEW JERSEY
BLOCK 4004, LOT 2

EVERGREEN HACKENSACK RIVER MITIGATION BANK

CROSS SECTIONS

FILENAME SITE PLAN SHEETS.DWG
SCALE AS NOTED

SHEET **SHEET 5**



EVERGREEN ENVIRONMENTAL HDR

Figure x
Service Area for the Evergreen Hackensack River Mitigation Bank

13 of 13